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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/926,085 | 08/27/2001 | Takenobu Sunagawa | 011080 | 2186 |

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EXAMINER

ZALUKAEVA, TATYANA

ART UNIT PAPER NUMBER

1713

DATE MAILED: 01/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/926,085

Applicant(s)

SUNAGAWA ET AL.

Examiner

Tatyana Zalukaeva

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-- The MAILING DATE of this communication appears n the cover sheet with the c rrespond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,6,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6,9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1, 3, 6, 9, and 10 are examined.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1, 3, 6 stand rejected under 35 U.S.C. 102(b) as being anticipated by Tugukuni et al (U.S. 4,256,805).

Tugukuni discloses a thermoplastic resin composition, comprising one of the ingredients as a copolymer obtained as in Example 8 in col.15, wherein all the components and their relative amounts are within the range of the instant claim 1 were radically polymerized according to any known methods. In the polymerization, as the polymerization initiator, there can be used, for instance, inorganic peroxides such as ammonium persulfate, potassium persulfate, hydrogen peroxide and percarbonates, organic peroxides such as acyl peroxides (e.g., benzoyl peroxide), alkyl hydroperoxides (e.g., tert-butyl hydroperoxide and p-menthane hydroperoxide) and dialkyl peroxides (e.g., di-tert-butyl peroxide), and nitrile compounds such as alpha.,.alpha.'-azo-bisisobutyronitrile. The amount of the catalyst is not particularly critical in this invention, but in general, the catalyst is used in an amount of 0.01 to 5% by weight of the total monomers. If required, a known chain transfer agent can be used in order to adjust the molecular weight (col. 6, lines 60-68)

Therefore, all the limitations of the instant claims are met by the disclosure of Tagukuni.

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4. Claim 9 is rejected under 35 U.S.C. 102(e) as being anticipated by Schehlann et al (U.S. 6,132,705).

Schehlann discloses in col.7, Table 1, line 9 a polymer t/BMA/EHA/HEMA in the ratio 80/10/10 obtained in the presence of 1.5% of EHTG (ethylhexyl thioglycolate) which is a mercaptan having an alkyl ester group of C4-20, and the very same chain transfer agent exemplified in the instant specification.

5. Claims 9 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Harada et al (U.S. 6,509,420).

Harada's invention is directed to an epoxy group-containing acrylic resin for a powder coating composition which is a copolymer, having a weight-average molecular weight of 3000 to 20000, of a vinyl monomer mixture comprising **10 to 60% by weight of alkyl ester(s) of (meth)acrylic acid, 10 to 60% by weight of an epoxy group-containing vinyl monomer(s)** and other vinyl monomer(s) (col.2, lines 55-64). Examples of the above-mentioned epoxy group-containing vinyl monomer include glycidyl (meth)acrylate, methylglycidyl (meth)acrylate, 3,4-epoxycyclohexylmethyl (meth)acrylate and allyl glycidyl ether (col.4, lines 22-25). T-butylperoxy-2-ethylhexanoate is used as a free radical initiator (col.7, lines 27, 28). 2-ethylhexyl thioglycolate is used as a chain transfer agent. Therefore, all the limitations of the instant claims 9 and 10 are met by Harada.

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Response to Arguments

6. Applicant's arguments with respect to claims 9 and 10 rejected under Hoebeke have been considered but are moot in view of the new ground(s) of rejection.

7. Applicant's arguments filed on October 24, 2003 with regard to reference to Tugukuni in rejection of claims 1, 3 and 6 have been fully considered but they are not persuasive. The crux of Applicants' arguments is that Tagukuni does not teach or suggest the use of t-butyl peroxy group for polymerization of a mixture comprising a methacrylate having an oxygen atom in addition to an ester bond.

In response to this, Applicants attention is drawn to Takuguni patent, col.6, lines 60-68, wherein tert-butyl hydroperoxide is named in line 66 and di-tert-butylperoxide is named in line 67.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tatyana Zalukaeva whose telephone number is (703) 308-8819. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703) 305-2450. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

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A handwritten signature in black ink, appearing to read 'T. Zalukaeva', with a long, sweeping horizontal stroke extending to the right.

Tatyana Zalukaeva
Primary Examiner
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January 9, 2004